

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 17 and 18 are requested to be cancelled.

Claims 1, 5-7, 10-16, and 19 are currently being amended.

Claims 20-22 are being added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-16 and 19-22 are now pending in this application.

Claim Objections

The Examiner objected to claims 10, 12, 16, and 18 asserting that certain informalities were present in those claims. Applicant respectfully submits that the Examiner's objections are obviated by the amendments to the claims above.

Double Patenting

The Examiner asserted that claims 17 and 18 were substantial duplicates of claims 5 and 6 respectively. Applicant submits that double patenting is not present in the claims above. Claims 5 and 6 refer to a molecule that includes a moiety of formula (II), while in claims 17 and 18 that molecule is a compound of formula (II). Therefore, Applicant requests that the Examiner reconsider and withdraw the assertion of double patenting.

Rejections under 35 U.S.C. § 102

The Examiner rejected claims 1-4, 7-11, 13, 15-16, and 19 under 35 U.S.C. § 102(b) as allegedly being anticipated by Gilead Sciences, Inc. (PCT Publ. WO 93/09127). The Examiner asserted that WO 93/09127 discloses a chemical analog of the same structure as the molecule of formula II or formula III as disclosed in the present invention. Applicant respectfully traverses these rejections as they may be considered in connection with the present claims.

Gilead Sciences, WO 93/09127 describes certain 7-deazaguanine compounds. However, those compounds do not include compound that have a substituted alkyl moiety at the present R1 position (as in present claims 1 and 7) or that are di- or tri-phosphate compounds as in claim 20. Therefore, the Gilead Sciences reference cannot anticipate any of claims 1-4, 7-9, .

In addition, this reference does not specifically describe the 7-ethyl, or 7-propyl derivatives specified in current claims 10 and 11, nor does it provide any suggestion to select those compounds from among the large number of compounds included within the genus of Gilead Sciences formula II.

Because the Gilead Sciences reference cannot anticipate any of the present claims, Applicant respectfully requests that the Examiner reconsider and withdraw these rejections.

Rejections under 35 U.S.C. § 103

The Examiner rejected claims 1-4, 7-13, 15-16, and 19 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gilead Sciences, Inc. (PCT publication WO 93/09127) in view of Li (Nucleic Acids Research, 1993, 21:2709-2714) and further in view of Seela and Thomas (Helvetica Chimica Acta, 1995, 78:94-108); claims 5 and 17 over Gilead Sciences in view of Stryer (Biochemistry, 3rd Ed., 1988); claims 6 and 18 over Gilead Sciences in view of Mathews (Biochemistry, 1990); claim 14 over Gilead Sciences in view of Carey (Organic Chemistry, 1992). Applicant respectfully traverses these rejections.

As the common reference in the outstanding rejections, Gilead Sciences describes some 7-deaza-2'-deoxyxanthosine and 7-deaza-2'-deoxyguanosine compounds, and their inclusion in DNA molecules for use in triple helix methods.

As indicated above in connection with the rejections under 35 U.S.C. 102, Gilead Sciences does not describe or suggest the present compounds that have a substituted alkyl group at the R1 position, and also does not suggest di- or tri-phosphate derivatives. Thus, none of the combinations of references can suggest any of the present claims that specify such compounds.

In addition, the references cited by the Examiner (Gilead Sciences and Mathews) do not suggest using the present 7-deaza-2'-deoxyguanosine derivatives in enzymatic methods of nucleic acid chain elongation as in present claims 6 and 18. Instead, the reference that describes 7-deaza compounds concern synthetic methods of preparation (see, e.g., Gilead Sciences p.14, p.23, and p.31). Such synthetic methods do not suggest enzymatic methods of elongation. On the other hand, the general description of enzymatic nucleic acid chain elongation in Mathews does not suggest using the present analogs in such methods. Thus, the Examiner's assertion that one of ordinary skill in the art would be motivated to use the nucleotide analogs of Gilead Sciences in enzymatic elongation methods as described in Mathews is unsupported, and is therefore improper.

Further, the cited references do not describe the claimed methods of determining nucleotide base sequence. In particular, the combination of Gilead Science and Stryer cited by the Examiner does not suggest claims 5 and 17. Gilead Sciences contains no suggestion of any use of 7-deaza guanosine compounds beyond the triple helix application that is the subject of the application. Stryer describes DNA sequencing generally, but does not suggest using the 7-deaza derivatives specified in claim 5. Thus, there is nothing to suggest or motivate one of ordinary skill in the art to combine these two references in any way to lead to the present invention. The Federal Circuit has consistently held that such a suggestion or motivation must be present before any such combination of references (or modification of one or more references) is proper. In

addition, such a suggestion or motivation must be shown by clear evidence; mere conclusory statements that a motivation exists is not sufficient.

In view of the lack of suggestion to provide the present claimed invention as indicated in the discussion above, Applicant respectfully requests that the Examiner reconsider and withdraw the present rejections.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

Date 7 August 2003

FOLEY & LARDNER
P.O. Box 80278
San Diego, California 92138-0278
Telephone: (858) 847-6714
Facsimile: (858) 792-6773

By Wesley B. Ames

Wesley B. Ames
Attorney for Applicant
Registration No. 40,893